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PATENT
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Case Docket No. GIVAR7.001APC
Date: March 1, 2002

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Givargizov, et al.
Appl. No. : 09/980,432
Filed : November 29, 2001
For : TIP STRUCTURES, DEVICES
ON THEIR BASIS, AND
METHODS FOR THEIR
PREPARATION
Examiner : Unknown
Group Art Unit : Unknown

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first class mail in an envelope addressed to: United States Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202, on

3/1/02
(Date)

John M. Carson, Reg. No. 34,303

TRANSMITTAL LETTER

United States Patent and Trademark Office
Arlington, VA 22202

ATTENTION: APPLICATION BRANCH

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement.
- (X) A PTO Form 1449 with nineteen (19) references.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

John M. Carson
Registration No. 34,303
Attorney of Record

GIVAR7.001APC

PATENT

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AND METHODS FOR THEIR)
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Examiner : Unknown)

INFORMATION DISCLOSURE STATEMENT

United States Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

Dear Sir:

Enclosed is form PTO-1449 listing references that are also enclosed. This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

Form PTO-1449 lists documents that are not in English. The article written by V.A. Bykov and S.A. Saunin entitled *New devices and possibilities in scanning probe microscopy* discloses a multi-lever device in which a signal from each probe is treated in a microchip that is placed on a holder. After treating the signal, it is applied to a system for controlling a variety of levers. In this operation, piezorresistive layers are used.

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The article written by V.V. Dremov and S.P. Molchanov entitled *An alternative working mode of SPM at surface investigations* discloses that at the action of the SPM in the regime of the point scanning of adhesion forces, an ability of the device to ensure a fast damping of non-resonant oscillations, to damp the lever for its subsequent interaction with solid surface under study is important. Such a property of the device, as well as a suitable design of the cantilever, can substantially (3-5 times) decrease the time of the investigation of the surface.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 3/1/02

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FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. GIVAR7.001APC	APPLICATION NO. 09/980,432
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Givargizov, et al.	
		FILING DATE November 29, 2001	GROUP Unknown

U.S. PATENT DOCUMENTS

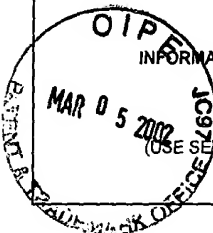
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	5,742,377	04/21/98	Minne, et al.			
	5,825,122	10/20/98	Givargizov, et al.			
	6,306,734	10/23/01	Givargizov			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 96/42101	12/27/96	PCT				
	WO 99/58925	11/18/99	PCT				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	C.A. Spindt, et al., <i>Physical properties of thin-film field emission cathodes with molybdenum cones</i> , J. Appl. Phys., 47, pp. 5248-5263 (1976)
	P. Grütter, et al., <i>Batch fabricated sensors for magnetic force microscopy</i> , Appl. Phys. Lett. 57, pp. 1820-1822 (1990)
	D.W. Abraham, et al., <i>Lateral dopant profiling in semiconductors by force microscopy using capacitive detection</i> , J. Vac. Sci. Technol., B9, pp. 703-706 (1991)
	K.L. Lee, et al., <i>Submicron Si trench profiling with an electron-beam fabricated atomic force microscope tip</i> , J. Vac. Sci. Technol., B9, pp. 3352-3568 (1991)
	E.I. Givargizov, <i>Ultrasharp tips for field emission applications prepared by the vapor-liquid-solid growth technique</i> , J. Vac. Sci. Technol., B11, pp. 449-453 (1993)

EXAMINER	DATE CONSIDERED
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)	ATTY. DOCKET NO. GIVAR7.001APC	APPLICATION NO. 09/980,432
	APPLICANT Givargizov, et al.	
	FILING DATE November 29, 2001	GROUP Unknown

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	C.D. Frisbie, et al., <i>Functional group imaging by chemical force microscopy</i> , Science, 265, pp. 2071-2074 (1994)
	V.A. Bykov, et al., <i>New devices and possibilities in a scanning probe microscopy</i> , in: Proc. Russian 1999 Conf. On SPM, Nizhnii Novgorod, pp. 132-133 (March 1999)
	J. Browning, <i>Field emission display development and testing</i> , Proc. Of the 8 th Intern. Conf. On Vacuum Microelectronics (Portland, USA), pp. 1-8 (1995)
	Y. Huang, et al., <i>Quantitative two-dimensional dopant profiling of abrupt dopant profiles by cross-sectional scanning capacitance microscopy</i> , J. Vac. Sci. Technol. A14, pp. 1168-1171 (1996)
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	P. Leinenbach, et al., <i>Fabrication and characterization of advanced probes for magnetic force microscopy</i> , Appl. Surf. Sci., 144-145, pp. 492-496 (1999)
	L. Abelman, et al., <i>Analysis of the limit of resolution in magnetic force microscopy using EBID tips</i> , a paper presented to Intern. STM Conf., Seoul, Korea, Ext. Abstr., pp. 477-478 (1999)
	V.V. Dremov, et al., <i>An alternative working mode of SPM at surface investigations</i> , in: Proc. Russian 1999 Conf. On SPM, Nizhnii Novgorod, pp. 404-410 (March 1999)
	E.I. Givargizov, et al., <i>Whisker probes</i> , Ultramicroscopy 82, pp. 57-61 (2000)

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